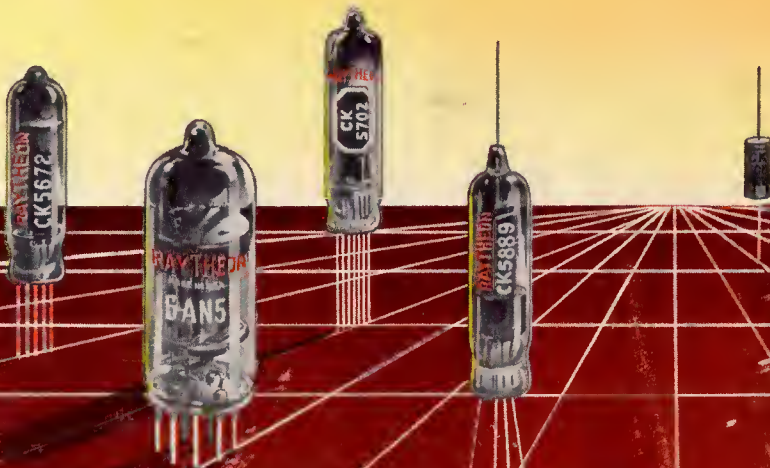


RAYTHEON

SPECIAL PURPOSE TUBE **CHARACTERISTICS**

**SUBMINIATURE
HEARING AID
RELIABLE
RUGGED
TRANSISTORS
CRYSTAL DIODES
NUCLEONIC
VOLTAGE
REGULATOR
RECTIFIER
TRANSMITTING
MAGNETRON
KLYSTRON**



CONTENTS

BH	H	RK2K22	Q	6X5WGT	D	CK537AX	A	CK1005	H	CK5744WA	B
OA2	K	RK2K25	Q	7AK7	L	CK538DX	A	CK1006	H	CK5749	C
OA3/VR75	K	RK2K26	Q	12J5WGT	D	CK539DX	A	CK1007	H	CK5750	C
OA4G	J	RK2K28	Q	RK25	M	CK541DX	A	CK1012	H	CK5751	C
OB2	K	RK2K29	Q	RK34 (See 2C34/RK34)		CK542DX	A	CK1013 (See CK6174)		CK5763	M
OB3/VR90	K	RK2K33	Q	RK38	M	CK542DXS	A	CK1017	K	CK5783	K
OC3/VR105	K	RK2K45	Q	RK47 (See RK814)		CK543DX	A	CK1018	G	CK5783WA	K
OD3/VR150	K	RK2K48	Q	RK59	M	CK544DX	A	CK1019	G	CK5784	A
OZ4A/CK1003	H	RK2K56	Q	RK60 (See 1641/RK60)		CK545DX	A	CK1020	G	CK5784WA	B
1AD4	A	2X2A	H	RK61	J	CK546DX	A	CK1021	G	CK5785	H
1AE4	L	3A4	L	RK65 (See 5D23/RK65)		CK547DX	A	CK1022	K	CK5787	K
1AE5	A	3A5	L	RK72	H	CK548DX	A	CK1023	G	CK5787WA	K
1AG4	A	3B4	L	RK73	H	CK549DX	A	CK1024	H	CK5814	C
1AG5	A	RK3B24W	H	RK75	M	CK551AXA (See 1AG5)		CK1026	G	CK5829	A
1AH4	A	RK3B26	H	BS101 (See CK5962)		CK553AXA (See 2E31)		CK1027 (See CK6174)		CK5829WA	B
1B46	K	RK3B29	H	CK108	L	CK556AX (See CK5676)		CK1028	H	CK5851	A
1B47	K	RK4B31	H	CK118	L	CK568AX (See CK5677)		CK1029	G	CK5854	A
1B90	G	4C35	J	RX120	H	CK569AX (See CK5678)		CK1030	L	CK5873	A
1N66	E	RK4D22	M	RX120A	H	CK570AX (See CK5697)		CK1031	L	CK5875	A
1N67	E	RK4D31	N	QK140	Q	CK571AX (See CK5886)		CK1032	G	CK5884	A
1N68	E	RK4J32	N	QK174C	N	CK573AX (See CK6029)		CK1033	L	CK5885	A
1V6	A	RK4J33	N	RX212	H	CK574AX	A	CK1034	G	CK5886	A
2C33/RX233A	J	RK4J34	N	RX215	H	CK605CX (See CK5702)		CK1035	G	CK5889	A
2C34/RK34	M	RK4J35	N	QK226	Q	CK606BX (See CK5704)		CK1036	H	CK5910	L
2C50	L	RK4J36	N	QK227	Q	CK608CX (See CK5703)		CK1037	K	CK5962	K
2C52	L	RK4J37	N	RX233 (See 2C33)		CK619CX (See CK5744)		CK1038	K	CK5967	A
2E24	M	RK4J38	N	QK289	Q	CK623CX (See CK5702)		CK1039	K	CK5968	A
2E26	M	RK4J39	N	QK290	Q	CK703 (See CK716)		CK1042	H	CK5969	A
2E30	M	RK4J40	N	QK291	Q	CK705	E	CK1089	J	CK5970	A
2E31	A	RK4J41	N	QK292	Q	CK706	E	RK1625	M	CK5971	A
2E32	A	RK4J43	N	QK293	Q	CK707	E	1641/RK60	H	CK5972	A
2E35	A	RK4J44	N	QK294	Q	CK708	E	2050	J	CK5975	A
2E36	A	RK4J54	N	QK295	Q	CK709	E	2051	J	CK5976	Q
2E41 (See 1AG5)		RK4J55	N	QK306	Q	CK710	E	CK5517	H	RK5981	Q
2E42 (See 1AG5)		RK4J56	N	310A	L	CK711	E	RK5586	N	RK5982	N
2G21	A	RK4J57	N	QK312	N	CK712	E	CK5608	L	CK5995	H
2G22	A	RK4J58	N	CK501AX	A	CK713	E	CK5608A	L	CK6021	B
RK2J23	N	RK4J59	N	CK502AX	A	CK715	E	RK5609	N	CK6029	A
RK2J24	N	5D23/RK65	M	CK503AX	A	RK715C	M	CK5642	H	RK6043	Q
RK2J25	N	RK5J26	N	CK504AX	A	CK716	F	RK5650 (See RK5981)		CK6050	A
RK2J26	N	5R4GY	H	CK506AX	A	RK721B	P	CK5651	K	CK6051	A
RK2J27	N	5R4WGY	H	CK507AX	A	RK726C	Q	CK5654	C	CK6073	K
RK2J28	N	6AJ5	L	CK509AX	A	RK730A	N	CK5656	L	CK6074	K
RK2J29	N	6AK5W	D	CK510AX	A	RK807	M	CK5657	N	CK6088	A
RK2J30	N	6AL5W	D	CK511X	A	RK811A	M	CK5670	C	CK6092	A
RK2J31	N	6AN5	L	CK512AX	A	RK812A	M	CK5672	A	CK6110	A
RK2J32	N	6AR6	L	CK515BX	A	RK813	M	CK5676	A	CK6111	B
RK2J33	N	6AS6	L	CK516AX	A	RK814	M	CK5677	A	CK6112	B
RK2J34	N	6AS6W	D	CK518AX	A	RK816	H	CK5678	A	RK6115	Q
RK2J42	N	6AS7G	L	CK520AX	A	RK829B	M	CK5679	C	RK6146	M
RK2J51	N	6BL6	Q	CK521AX	A	RK832A	M	CK5686	C	CK6147	A
RK2J55	N	6C4W	D	CK522AX	A	RK837	M	CK5694	L	CK6148 (See CK5702WA)	
RK2J56	N	RK6D21	M	CK523AX	A	RK866A	H	CK5697	A	CK6149 (See CK5703WA)	
RK2J61A	N	RK6D22	M	CK524AX	A	RK872A	H	CK5702	A	CK6150 (See CK5784WA)	
RK2J62A	N	6J4	L	CK525AX	A	RX884	J	CK5702WA	B	CK6151 (See CK5744WA)	
RK2J66	N	6J5WGT	D	CK526AX	A	RX885	J	CK5703WA	B	CK6152	B
RK2J67	N	6J6W	D	CK527AX	A	954	L	CK5703WA	B	CK6174	H
RK2J68	N	6N4	L	CK528AX	A	955	L	CK5704	A	CK6186	C
RK2J69	N	6SA7WGT	D	CK529AX	A	956	L	CK5704	A	CK6187	C
RK2J70	N	6SJ7WGT	D	CK531DX	A	957	L	CK5704	A	CK6213	K
RK2J71	N	6SN7WGT	D	CK532DX	A	CK1003 (See OZ4A/CK1003)		CK5704	A	9001	L
		6X4W	D	CK533AX	A			CK5704	A	9002	L
				CK534AX	A			CK5704	A	9003	L
				CK535AX	A			CK5704	A	9005	L
				CK536AX	A			CK5704	A	9006	L

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NOTES

¹ Fully shielded by metallic coating.

² Leads are 0.016" diameter and 0.200" long.

³ Conversion Conductance.

⁴ Voltage Gain (times).

⁵ Space-Charge tube, value given is cascade gain.

⁶ Measured at 50 microwatts input to emitter.

⁷ This type has an 8-lead subminiature button base.

⁸ Water cooled.

⁹ Filament center-tap provided for 1.25 or 2.5 volt operation. Type is designed for intermittent service operation.



SUBMINIATURE TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS Inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μ mhas	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE
			Volts	Ma.	Type		Length	Width	Thick-ness												
1AD4¹	Pentode	R-F Amplifier	1.25	100	Fil	5A	1.5	.385	.285	45	Rg = 2 meg.	45		2.8	0.8		0.5	2000			1AD4¹
1AE5	Heptode	Mixer	1.25	60	Fil	6A	1.5	.400	.300	45	Rg = 0.2 meg.	45	0	0.9	2		0.2	200 ³			1AE5
1AG4	Pentode	Power Amp.	1.25	40	Fil	5J	1.5	.385	.285	41.4	-3.6	41.4		2.4	0.6		0.18	1000	35	0.012	1AG4
1AG5	Diode-Pent.	Det.-Amplifier	1.25	30	Fil	6B	1.5	.385	.285	45	Rg = 5 meg.	45		0.8	0.25		0.26	350			1AG5
1AH4¹	Pentode	R-F Amplifier	1.25	40	Fil	5A	1.5	.385	.285	45	Rg = 5 meg.	45		0.75	0.2		1.5	750			1AH4¹
1V6	Triode-Pent.	Converter	1.25	40	Fil	7BC	1.5	.410	.285	45	Rg = 5 meg.	45		0.40	0.15		1.0	200 ³	Eb Triode = 45 lb Triode = 0.4 ma.		1V6
2E31¹ 2E32¹⁻²	Pentode	R-F Amplifier	1.25	50	Fil	5D	1.5	.385	.285	22.5	0	22.5		0.4	0.3		0.35	500			2E31¹ 2E32¹⁻²
2E35 2E36²	Pentode	Power Amp.	1.25	30	Fil	5B	1.5	.385	.285	45	-1.25	45		0.6	0.11		0.25	525	6	0.1	2E35 2E36²
2G21 2G22²	Triode-Hept.	Converter	1.25	50	Fil	7B	1 1/16	.385	.285	22.5	Rg = 50,000	22.5	0	0.2	0.3		0.5	60 ³	Eb Triode = 22.5 lb Triode = 1 ma.		2G21 2G22²
CK501AX	Pentode	Voltage Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	0	45		0.65	0.25		1.0	750	45 ⁴		CK501AX
CK502AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	-1.25	45		0.6	0.15		0.2	550	6	0.1	CK502AX
CK503AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	-2	45		0.8	0.25		0.35	550	9.5	0.05	CK503AX
CK505AX	Pentode	Voltage Amp.	0.625	30	Fil	5J	1.25	.385	.285	22.5	-0.625	22.5		0.125	0.040		1.1	180	38 ⁴		CK505AX
CK506AX	Pentode	Power Amp.	1.25	50	Fil	5J	1.5	.385	.285	45	-4.5	45		1.25	0.4		0.12	500	25	0.03	CK506AX
CK507AX	Pentode	Power Amp.	1.25	45	Fil	5J	1.5	.385	.285	45	-2	45		0.9	0.3		0.3	575	11	0.05	CK507AX
CK509AX	Triode	Voltage Amp.	0.625	30	Fil	4B	1.25	.385	.285	45	0			0.15			0.15	160	16 ⁴		CK509AX
CK510AX	Dble-Tetr.	Voltage Amp.	0.625	50	Fil	7D	1.25	.400	.285	45	3			0.06			0.5	65	150 ⁵		CK510AX
CK511X	Pentode	Voltage Amp.	1.25	50	Fil	6C	1.75	Dia. = .550		45	0	45		0.24	0.2		0.22	220	30 ⁴	1.0	CK511X
CK512AX	Pentode	Voltage Amp.	0.625	20	Fil	5J	1.25	.385	.285	22.5	-0.625	22.5		0.125	0.040		1.25	160	37 ⁴		CK512AX
CK515BX	Triode	Voltage Amp.	0.625	30	Fil	4B	1.19	Dia. = .315		45	0			0.15		24		160	16 ⁴	1.0	CK515BX
CK516AX	Triode	Voltage Amp.	0.625	20	Fil	5M	1.25	.385	.285	22.5	-0.625			0.15			0.05	200	7.5 ⁴	1.0	CK516AX
CK518AX¹	Pentode	Power Amp.	1.25	30	Fil	5E	1.515	.380	.290	45	-2	45		0.8	0.25		0.35	550	9.5	0.5	CK518AX¹
CK520AX	Pentode	Power Amp.	0.625	50	Fil	5J	1.25	.385	.285	45	-2.5	45		0.24	0.075		1.0	150	3.5	0.15	CK520AX
CK521AX	Pentode	Power Amp.	1.25	50	Fil	5J	1.5	.385	.285	22.5	-3	22.5		0.8	0.22		0.22	400	6	0.02	CK521AX
CK522AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.3	0.08		0.6	450	1.2	0.2	CK522AX
CK523AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	22.5	-1.2	22.5		0.3	0.075		0.3	360	2.5	0.075	CK523AX
CK524AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	15	-1.75	15		0.45	0.125		0.2	300	2.2	0.03	CK524AX
CK525AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	-1.2	22.5		0.25	0.06		0.33	325	2.2	0.06	CK525AX
CK526AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	-1.5	22.5		0.45	0.12		0.22	400	3.75	0.05	CK526AX
CK527AX	Pentode	Power Amp.	1.25	15	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.1	0.025		1.8	225	0.75	0.3	CK527AX
CK528AX¹	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	22.5	0	22.5		0.3	0.08		0.6	450	1.2	0.2	CK528AX
CK529AX¹	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	15	-1.25	15		0.32	0.075		0.3	350	1.6	0.05	CK529AX¹
CK531DX	Pentode	Power Amp.	1.25	20	Fil	5J	1.25	.285	.220	15	-1.5	15		0.30	0.090		0.25	275	1.6	0.06	CK531DX
CK532DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	0	22.5		0.40	0.125		0.18	450	1.8	0.1	CK532DX
CK533AX	Pentode	Power Amp.	1.25	15	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.36	0.09		0.5	400	1.8	0.075	CK533AX
CK534AX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.25	.385	.285	15	-0.625	15		0.0047	0.0014		12	20	30 ⁴	2.2	CK534AX
CK535AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	15	-1.25	15		0.32	0.075		0.3	350	1.6	0.05	CK535AX
CK536AX¹	Pentode	Power Amp.	1.25	15	Fil	5E	1.5	.385	.285	22.5	0	22.5		0.36	0.09		0.5	400	1.8	0.075	CK536AX¹
CK537AX¹	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	22.5	-1.5	22.5		0.45	0.12		0.22	400	3.75	0.05	CK537AX¹
CK538DX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.0	.285	.220	15	-0.625	15		0.0046	0.002		10	18	28 ⁴	2.2	CK538DX

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the field, it is not intended to indicate type availability.



SUBMINIATURE TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS Inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μ mhms	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE
			Volts	Ma.	Type		Length	Width	Thick-ness												
CK539DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	-1.4	22.5		0.25	0.075		0.25	300	2.2	0.1	CK539DX
CK541DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	30	0	30		0.25	0.075		0.5	425	1.4	0.2	CK541DX
CK542DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	-2.0	22.5		0.425	0.13		0.15	325	3.75	0.05	CK542DX
CK542DXS ¹	Pentode	Power Amp.	1.25	15	Fil	5J	1.4	.290	.225	22.5	-2	22.5		0.425	0.13		0.15	325	3.75	0.05	CK542DXS ¹
CK543DX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.0	.285	.220	15	-0.625	15		0.005	0.0022		5.0	15	20 ⁴		CK543DX
CK544DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	30	0	30		0.135	0.035		1.2	325	0.52	0.2	CK544DX
CK545DX	Pentode	Voltage Amp.	0.625	7.5	Fil	5F	1.0	.290	.235	15	-0.625	15		0.0046	0.002		12	16	25 ⁴	2.2	CK545DX
CK546DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	22.5	0	22.5		0.375	0.085		0.2	425	1.75	0.1	CK546DX
CK547DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	30	0	30		0.240	0.040		0.5	425	1.35	0.2	CK547DX
CK548DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	22.5	-1.4	22.5		0.240	0.060		0.25	300	2.1	0.1	CK548DX
CK549DX	Pentode	Voltage Amp.	0.625	10	Fil	5J	1.0	.285	.220	15	-0.625	15		0.0046	0.002		12.0	17	27 ⁴		CK549DX
CK574AX ¹	Pentode	R-F Amplifier	0.625	20	Fil	5E	1.25	.390	.290	22.5	-0.625	22.5		0.125	0.040		1.25	160			CK574AX ¹
CK1034	Gas Diode	GM Counter			Cold	3A	2 3/4	Dia. = .400		See Radiation Counter Tube Section for Characteristics											CK1034
CK1035	Gas Diode	GM Counter			Cold	3A	1.5	.385	.285	See Radiation Counter Tube Section for Characteristics											CK1035
CK1036	Gas Diode	HW Rectifier			Cold	5P	1 3/16	Dia. = .400		See Rectifier Tube Section for Characteristics											CK1036
CK1037	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											CK1037
CK1038	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											CK1038
CK1039	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											CK1039
CK1042	Gas Diode	HW Rectifier			Cold	5N	2 1/2	Dia. = .400		See Rectifier Tube Section for Characteristics											CK1042
CK5672	Pentode	Power Amp.	1.25	50	Fil	5F	1.5	.385	.285	67.5	-6.5	67.5		3.25	1.1			650	65	0.020	CK5672
CK5676	Triode	UHF Osc.	1.25	120	Fil	4B	1.5	.385	.285	135	-5			4		15		1600			CK5676
CK5677	Triode	UHF Osc.	1.25	60	Fil	4A	1.5	.385	.285	135	-5.5			1.9		16		850			CK5677
CK5678 ¹	Pentode	R-F Amplifier	1.25	50	Fil	5A	1.5	.385	.285	67.5	5 meg	67.5		1.8	0.48		1.0	1100			CK5678 ¹
CK5697	Triode	Electrometer	0.625	20	Fil	4C	1.25	.400	.285	12	-3			0.22		2.1		135	Max. I_{c1} = 5×10^{-13} amp.		CK5697
CK5702	Pentode	R-F Amplifier	6.3	200	Htr	7C	1.5	Dia. = .400		120	Rk200	120		7.5	2.5		0.34	5000			CK5702
CK5702WA	Pentode	R-F Amplifier	6.3	200	Htr	7C	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											CK5702WA
CK5703	Triode	UHF Osc.	6.3	200	Htr	5G	1.5	Dia. = .400		120	Rk220			9		25		5000			CK5703
CK5703WA	Triode	UHF Osc.	6.3	200	Htr	5G	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											CK5703WA
CK5704	Diode	Detector	6.3	150	Htr	4D	1.5	Dia. = .315		Max. RMS Plate Voltage = 150v; Max. I_o = 9 mdc											CK5704
CK5744	Triode	Amp.-HF Osc.	6.3	200	Htr	5H	1.5	Dia. = .400		250	Rk500			4		70		4000			CK5744
CK5744WA	Triode	Amp.-HF Osc.	6.3	200	Htr	5H	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											CK5744WA
CK5783	Gas Diode	Volt. Reference			Cold	3A	1 3/8	Dia. = .400		See Voltage Reference Tube Section for Characteristics											CK5783
CK5783WA	Gas Diode	Volt. Reference			Cold	3A	1 3/8	Dia. = .400		See Voltage Reference Tube Section for Characteristics											CK5783WA
CK5784	Pentode	Mixer-Gated Amp.	6.3	200	Htr	7A	1.5	Dia. = .400		120	-2	120	0	5.2	3.5			3200			CK5784
CK5784WA	Pentode	Mixer-Gated Amp.	6.3	200	Htr	7A	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											CK5784WA
CK5785	Diode	HW Rectifier	1.25	15	Fil	7F	1.5	.400	.300	See Rectifier Tube Section for Characteristics											CK5785
CK5787	Gas Diode	Volt. Regulator			Cold	3A	2 1/16	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											CK5787
CK5787WA	Gas Diode	Volt. Regulator			Cold	3A	2 1/16	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											CK5787WA
CK5829	Dble. Diode	Detector	6.3	150	Htr	7FA	1.5	.410	.385	Max. Inverse Peak Voltage = 330v; Max. I_o = 5 ma. per plate											CK5829
CK5829WA	Dble. Diode	Detector	6.3	150	Htr	7FA	1.5	.410	.385	See Reliable Cathode Type Subminiature Section for Characteristics											CK5829WA
CK5851 ⁷	Beam Pent.	R-F Pwr. Amp	1.25 2.5	110 55	Fil	8CA	1.6	Dia. = .400		125	-7.5	125		5.5	0.9		0.175	1600			CK5851 ⁷
CK5854	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	-2.0	45		0.8	0.25		0.35	550	9.5	0.05	CK5854
CK5873 ⁷	Dble. Triode	Voltage Amp.	6.3	300	Htr	8K	1.5	Dia. = .400		150	-3.0			9.0		22		2900	(Each Unit)		CK 5873 ⁷
CK5875 ¹	Pentode	Radiosonde	1.25	100	Fil	5A	1.5	.385	.285	90	0	90		3.5	1.0			2500			CK5875 ¹

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the field, it is not intended to indicate type availability.



SUBMINIATURE TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS Inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μ mhos	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE	
			Volts	Ma.	Type		Length	Width	Thick-ness													
CK5884	Dble. Tetr.	Electrometer	1.25	10	Fil	5K	1.625	.400	.285	4.5	-3.0			0.02		0.75		15	Nom. $I_c^1 = 1 \times 10^{-14}$	CK5884		
CK5885 ⁷	Dble. Tetr.	Electrometer	1.25	20	Fil	8CC	1.625	Dia. = .389		13.5	-3.0			0.185		2.4		160	Nom. $I_c^1 = 1 \times 10^{-12}$	CK5885 ⁷		
CK5886	Pentade	Electrometer	1.25	10	Fil	5C	1.5	.400	.285	10.5	3	Triade Cann.		0.2		2		160	Max. $I_c^1 = 2 \times 10^{-13}$ amp.	CK5886		
CK5889	Pentade	Electrometer	1.25	7.5	Fil	4G	1.6	Dia. = .400		12	-2.0	4.5		0.005	0.005		18	14	Max. $I_c^1 = 3 \times 10^{-15}$ omp.	CK5889		
CK5967 ⁷	Dble. Triode	R-F Amplifier	1.25	120	Fil	8CK	1.75	Dia. = .400		45	Rg = 5 meg.			3.0		18		2000	(Each Unit)	CK5967 ⁷		
CK5968 ⁷	Dble. Triode	Mixer	1.25	120	Fil	8CE	1.75	Dia. = .400		45	0			0.7		45		1300	(Each Unit)	CK5968 ⁷		
CK5969 ⁷	Dble. Tetr.	R-F Pwr.Amp.	1.25	200	Fil	8CB	1.62	Dia. = .400		135	-3	45		6.0	0.5			1700	(Each Unit)	CK5969 ⁷		
CK5972 ¹	Dble. Pent.	R-F Amplifier	1.25	160	Fil	8CD	1.75	Dia. = .400		45	Rg = 5 meg.	45		3.0	0.9		0.17	1850	(Each Unit)	CK5970 ⁷		
CK5971	Triode	Amp.-Osc.	1.25	80	Fil	7CD	1.5	.385	.285	135	-3			4.0		23		2150		CK5971		
CK5972 ¹	Pentode	R-F Amplifier	1.25	60	Fil	5A	1.5	.400	.300	67.5	Rg = 2 meg.	67.5		1.9	0.5		1.0	1850		CK5972 ¹		
CK5975	Triode	Amp.-Osc.	6.3	175	Htr	7BB	1.5	Dia. = .400		100	Rk270			10		17.5		5100		CK5975		
CK5995	Diode	HW Rectifier	6.3	300	Htr	7BA	1.75	Dia. = .400		See Rectifier Tube Section for Characteristics												CK5995
CK6021 ⁷	Dble. Triode	Voltage Amp.	6.3	300	Htr	8CF	1 3/4	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics												CK6021 ⁷
CK6029	Triode	UHF Osc.	1.25	200	Fil	4A	1.5	.385	.285	90	-4			11		8.5		2000		CK6029		
CK6050	Triode	UHF Osc.	1.25	120	Fil	4A	1.5	.385	.285	135	-5			4.0		16		1600		CK6050		
CK6051	Pentode	Power Amp.	1.25	100	Fil	5L	1.5	.385	.285	45	-4	45		3.0	0.9		0.035	1200	50	0.02	CK6092	
CK6088	Pentode	Power Amp.	1.25	20	Fil	5F	1.5	.385	.285	45	-1.25	45		0.55	0.135		0.85	550	9.5	0.2	CK6088	
CK6092	Pentode	Power Amp.	1.25	50	Fil	5F	1.5	.385	.285	67.5	-6.5	67.5		2.9	0.8			750	80	0.02	CK6092	
CK6110 ⁷	Dble. Diode	FW Rectifier	6.3	150	Htr	8CH	1 3/4	Dia. = .400		See Rectifier Tube Section for Characteristics												CK6110 ⁷
CK6111 ⁷	Dble.Triode	Voltage Amp.	6.3	300	Htr	8CF	1 3/4	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics												CK6111 ⁷
CK6112 ⁷	Dble. Triade	Voltage Amp.	6.3	300	Htr	8CF	1 3/4	Dia. = .400		See Reliable Cothode Type Subminiature Section for Choracteristics												CK6112 ⁷
CK6147 ⁷⁻⁹	Beam Pentode	RF Pwr Amp.	1.25 2.5	125 62.5	Fil	8CG	1.6	Dia. = .400		125	-7.5	125		5.5	0.9		0.175	1600			CK6147 ⁷⁻⁹	
CK6152	Triode	Amp.-Osc.	6.3	200	Htr	7BB	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics												CK6152
CK6213	Gas Diode	Valtage Ref.			Cold	3A	1 3/4	Dia. = .400		See Valtage Reference Tube Section for Choracteristics												CK6213



RUGGED TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BASING	MAX. DIMENSIONS		PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μ mhos	TYPE
			Volts	Amps	Type		Height	Diam.										
RK3B24W	Diode	HW Rectifier	2.5 5.0	3.0 3.0	Fil	8EA	4 $\frac{13}{16}$	1 $\frac{1}{2}$	See Rectifier Tube Section for Characteristics									RK3B24W
5R4WGY	Dble. Diode	FW Rectifier	5.0	2.0	Fil	8WB	5 $\frac{5}{16}$	2 $\frac{1}{16}$	See Rectifier Tube Section for Characteristics									5R4WGY
6AK5W	Pentode	RF Amplifier	6.3	0.175	Htr	7BD	1 $\frac{3}{4}$	$\frac{3}{4}$	120	-2	120		7.5	2.5		0.34	5000	6AK5W
6AL5W	Dble. Diode	Detector	6.3	0.3	Htr	9M	1 $\frac{3}{4}$	$\frac{3}{4}$	Max. Peak Inverse = 330 v; Max. Io = 9 madc per plate									6AL5W
6AS6W	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	1 $\frac{3}{4}$	$\frac{3}{4}$	120	-2	120	0	5.2	3.5			3200	6AS6W
6C4W	Triode	Osc.-Amplifier	6.3	0.15	Htr	9U	1 $\frac{3}{4}$	$\frac{3}{4}$	250	-8.5			10.5		17		2200	6C4W
6J5WGT	Triode	Voltage Amplifier	6.3	0.3	Htr	9R	3 $\frac{5}{16}$	1 $\frac{5}{16}$	250	-8			9.0		20		2600	6J5WGT
6J6W	Dble. Triode	UHF Oscillator	6.3	0.45	Htr	7BF	2 $\frac{1}{4}$	$\frac{3}{4}$	100	Rk50			8.5		38		5300 (Each Unit)	6J6W
6SA7WGT	Heptode	Converter	6.3	0.3	Htr	9V	3 $\frac{5}{16}$	1 $\frac{9}{32}$	250	Rg = 20000	100	-2	3.5	8.3		1.0	450 ³	6SA7WGT
6SJ7WGT	Pentode	RF-AF Amplifier	6.3	0.3	Htr	9L	3 $\frac{5}{16}$	1 $\frac{5}{16}$	250	-3	100	0	3.0	0.8		> 1.0	1650	6SJ7WGT
6SN7WGT	Dble. Triode	Voltage Amplifier	6.3	0.6	Htr	8BD	3 $\frac{5}{16}$	1 $\frac{5}{16}$	250	-8			9.0		20		2600 (Each Unit)	6SN7WGT
6X4W	Dble. Diode	FW Rectifier	6.3	0.6	Htr	9Q	2 $\frac{1}{4}$	$\frac{3}{4}$	See Rectifier Tube Section for Characteristics									6X4W
6X5WGT	Dble. Diode	FW Rectifier	6.3	0.6	Htr.	8XB	3 $\frac{5}{16}$	1 $\frac{5}{16}$	See Rectifier Tube Section for Characteristics									6X5WGT
12J5WGT	Triode	Voltage Amplifier	12.6	0.15	Htr	9R	3 $\frac{5}{16}$	1 $\frac{5}{16}$	250	-8			9.0		20		2600	12J5WGT

RADIATION COUNTER (GIGER-MUELLER) TUBES

(All glass, self-quenching)

TYPE	MAX. DIMENSIONS Inches		TERM. CONN.	OPERATING VOLTAGE RANGE Volts dc	PLATEAU LENGTH Volts dc	RELATIVE PLATEAU SLOPE Per 100v	GIGER THRESHOLD Volts dc max.	BACKGROUND Unshielded counts/min.	AMBIENT TEMP. RANGE °Cent.	WALL WEIGHT Nominal mg./sq.cm.	EFFICIENCY %	LIFE counts	TYPE
	Length	Diam.											
CK1B90	8 $\frac{1}{4}$	1 $\frac{3}{16}$	8HA	Thres. +50	> 150	3%	1100	60	-40 to +50	35	90	10 ⁸	CK1B90
CK1018	8 $\frac{1}{4}$	1 $\frac{3}{16}$	8HA	850-950	> 150	3%	850	60	-40 to +55	35	90	10 ⁸	CK1018
CK1019	8 $\frac{1}{4}$	1 $\frac{3}{16}$	8HA	875-975	> 150	3%	880	60	-40 to +55	35	90	10 ⁸	CK1019
CK1020	6	$\frac{3}{4}$	9S	850-950	> 150	3%	850	60	-40 to +55	35	90	10 ⁸	CK1020
CK1021	5 $\frac{1}{4}$	2 $\frac{1}{32}$	9S	850-950	> 150	3%	850	60	-40 to +55	35	90	10 ⁸	CK1021
CK1023	5	$\frac{3}{4}$	5DA	850-950	> 150	3%	850	60	-40 to +55	35	90	10 ⁸	CK1023
CK1026	3	$\frac{3}{4}$	8HB	850-950	> 150	30%	760	30	-70 to +50	175		10 ⁸	CK1026
CK1029	5 $\frac{1}{4}$	2 $\frac{1}{32}$	9S	850-950	> 150	3%	850	60	-40 to +55	35	90	10 ⁸	CK1029
CK1032	3	$\frac{3}{4}$	8HB	1050-1200	> 150	30%	1000	30	-70 to +50	175		10 ⁸	CK1032
CK1034	2 $\frac{5}{8}$	0.400	3A	700		20%	585		-55 to +70	Hvy		> 10 ¹⁰	CK1034
CK1035	1.5	W = .385 Th = .285	3A	700			585		-55 to +70	Hvy		> 10 ¹⁰	CK1035

RELIABLE TUBES

Since the announcement in October 1951 of the first five RELIABLE cathode type subminiature tubes, Raytheon has been requested by the Armed Services to change the type numbers originally registered to new numbers which would more clearly identify each tube's association with its prototype. Accordingly, type 6148 is now known as type 5702WA, type 6149 as 5703WA, type 6150 as 5784WA, and type 6151 as 5744WA. This change is in type number only and in no way affects the quality of the tubes offered for sale. Type 6152, having no prototype with 0.200 amp. heater, remains unchanged in type designation.

Although certain minor modifications in tube structure have been made to meet new test requirements, the entire line of RELIABLE cathode type subminiature tubes, with the exception of the button stem types, is basically the same group

TUBE RELIABILITY

Today RELIABILITY is a very important word in the electronic industry. More reliable component parts, particularly electron tubes, are essential to the success of most modern electronic applications. To be considered reliable, an electron tube must be capable of performing a desired function in an equipment with a very low probability of failure for some definite life period. The "desired function" which any particular tube type may be expected to perform may vary widely from one application to another. In one equipment, stability of some particular electrical characteristic may be the prime consideration — in another, mechanical stability under vibration or shock; still another, may require very long life under normal or perhaps even a high ambient temperature, and so on. Unfortunately, the design and processing of any one particular tube type to meet these various and in some cases conflicting reliability requirements is limited not only by the ingenuity of the manufacturer but in many cases by the Laws of Nature. Tube manufacture is a series of compromises and the most reliable tubes are made by the manufacturer who through his experience and knowledge of application requirements makes the most judicious compromises in his design and manufacturing procedures.

Raytheon's field experience with the prototypes of the flat press Reliable tube types has indicated the desirability of sacrificing heater power for improved reliability of certain performance characteristics. These types have been designed with somewhat higher heater current and higher cathode temperature than has been common in other cathode type subminiatures of this general class. The higher cathode temperature results in:

1. Lower vibrational output since it permits tighter cathode to mica spacer fit (limited by heat loss through spacers on lower temperature cathodes)
2. Improved low heater voltage performance
3. Improved peak current output for class C and pulse applications
4. Improved high temperature life performance by increasing resistance of cathode to gas poisoning
5. Reduced shot effect noise and partition noise by maintaining a higher

of special purpose subminiature tubes which Raytheon has been producing since 1941. This line of subminiature tubes has been in continuous production for the past five years. Filament type subminiatures with many similar structural features have been in continuous production for twelve years. Button stem types have been in low scale production for the last two years. Sufficient field and design test data have now been accumulated to permit announcement of these tubes as RELIABLE types.

It is planned to add additional types to the Raytheon RELIABLE line in succeeding months. These new types will all carry RELIABLE ratings and will be released as soon as sufficient long life and other performance data are accumulated to insure reliable field results.

transconductance level at lower heater supply voltage conditions and throughout life.

In analyzing the factors influencing reliability in electron tubes, consideration must be given to the causes of failure of tubes now in service. A tube may fail prematurely in service for one of two basic reasons; either it was improperly manufactured or it was improperly used. *Manufacturing* defects may be either electrical or mechanical in nature and are the result of poor workmanship on the part of the tube supplier. *Application* defects may be either mechanical or electrical in nature and are a result of insufficient knowledge on the part of tube user of the limitations of the tube type involved.

Factors which influence manufacturing defects are:

1. Improper tube design
2. Inadequate personnel training and supervision
3. Improper equipment setup, maintenance and operation
4. Inadequate processing schedules
5. Insufficient quality control.

There is no substitute for *manufacturing* experience in the control of these factors. Continuity of production is the best guarantee of low probability of failure caused by manufacturing defects.

Factors which influence application defects are:

1. Insufficient published data on tube characteristics
2. Low margin of safety on published ratings
3. Low margin of safety in circuit design;
 - a. failure to take into account normal characteristics spread,
 - b. use of tubes outside of published ratings,
 - c. lack of appreciation of characteristics changes during life.
4. Circuit design dependence upon uncontrolled tube characteristic

Good liaison between the tube producer and the tube user is the best guarantee of low probability of failure caused by application defects.



RELIABLE CATHODE TYPE SUBMINIATURE TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HEATER		TERM. CONN.	MAX. DIMENSIONS		PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. umhos	TYPE
			Volts	Amps.		Height	Diam.										
CK5702WA	Pentode	RF Amplifier	6.3	0.2	7C	1.5	.400	120	Rk200	120	0	7.5	2.5		0.34	5000	CK5702WA
CK5703WA	Triode	UHF Osc.	6.3	0.2	5G	1.5	.400	120	Rk200			9.0		25		5000	CK5703WA
CK5744WA	Triode	Amp.-HF Osc.	6.3	0.2	5H	1.5	.400	250	Rk500			4.0		70		4000	CK5744WA
CK5783WA	Gas Diode	Volt. Reference	Cold		3A	1 5/8	.400	See Voltage Reference Tube Section for Characteristics									CK5783WA
CK5784WA	Pentode	Mixer-Gated Amp.	6.3	0.2	7A	1.5	.400	120	— 2	120	0	5.2	3.5			3200	CK5784WA
CK5787WA	Gas Diode	Volt. Regulator	Cold		3A	2 1/16	.400	See Voltage Regulator Tube Section for Characteristics									CK5787WA
CK5829WA	Dble. Diode	Detector	6.3	.015	7FA	1.5	W = .410 Th = .385	Max. Inverse Peak Voltage = 330 v; Max. Io = 5 ma. per plate									CK5829WA
CK6021 ⁷	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk150			6.5		35		5400 (Each Unit)	CK6021 ⁷
CK6110 ⁷	Dble. Diode	FW Rectifier	6.3	0.15	8CH	1 3/8	.400	See Rectifier Tube Section for Characteristics									CK6110 ⁷
CK6111 ⁷	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk220			8.5		20		5000 (Each Unit)	CK6111 ⁷
CK6112 ⁷	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk1500			0.8		70		1800 (Each Unit)	CK6112 ⁷
CK6152	Triode	Amp.-Osc.	6.3	0.2	7BB	1.5	.400	200	Rk680			12.5		15.5		4000	CK6152

RELIABLE MINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BAS-ING	MAX. DIMENSIONS Inches		PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μ mhos	OUT-PUT watts	LOAD RESIST. ohms	TYPE
			Volts	Amps.	Type		Height	Diam.												
CK5654	Pentode	R-F Amplifier	6.3	0.175	Htr	7BD	1 ¾	¾	120	Rk200	120		7.5	2.5		0.34	5000			CK5654
CK5670	Dble. Triode	Voltage Amp.	6.3	0.35	Htr	8CJ	1 ¾	⅞	150	Rk240			8.2		35		5500	(Each Unit)		CK5670
CK5686	Pentode	RF-AF Power Amp.	6.3	0.35	Htr	9J	2⅝ ₁₆	⅞	250	—12.5	250		27	3.0			3300	2.7	9000	CK5686
CK5725	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	1 ¾	¾	120	—2	120	0	5.2	3.5			3200			CK5725
CK5726	Dble. Diode	Same as 6AL5	6.3	0.3	Htr	9M	1 ¾	¾	Max. Peak Inverse = 330v; Max. Io = 9 mads per Plate.											CK5726
CK5749	Pentode	R-F Amplifier	6.3	0.3	Htr	9X	2⅛	¾	250	Rk68	100	0	11	4.2		1.0	4400			CK5749
CK5750	Heptode	Converter	6.3	0.3	Htr	8Z	2⅛	¾	250	Rg20k	100	—1.5	2.6	7.5		1.0	475 ³			CK5750
CK5751	Dble. Triode	Voltage Amp.	6.3 12.6	0.35 0.175	Htr	9W	2⅝ ₁₆	⅞	250	—3			1.0		70	0.058	1200	(Each Unit)		CK5751
CK5814	Dble. Triode	Voltage Amp.	6.3 12.6	0.35 0.175	Htr	9W	2⅝ ₁₆	⅞	250	—8.5			10.5		17	0.0077	2200	(Each Unit)		CK5814
CK6186	Pentode	RF Amplifier	6.3	0.3	Htr	7BD	2⅛	0.75	250	Rk200	150		7.0	2.0		0.8	5000			CK6186
CK6187	Pentode	Mixer-Gated Amp.	6.3	0.15	Htr	9P	1 ¾	0.75	120	—2	120	0	5.2	3.5			3200			CK6187



GERMANIUM CRYSTAL DIODES



TYPE	TYPICAL APPLICATION	TERM. CONN.	MAX. DIMENSIONS Inches			MAX. DC INVERSE VOLT-AGE	MAX. PEAK ANODE CURR. ma.	MAX. AVERAGE DC ANODE CURR. ma.	MIN. FOR- WARD CURRENT AT +1 Volt ma.	MAX. INVERSE CURRENT AT -5 Volts ma.	MAX. INVERSE CURRENT AT -10 Volts ma.	MAX. INVERSE CURRENT AT -50 Volts ma.	MAX. INVERSE CURRENT AT -100 Volts ma.	MIN. INVERSE VOLTAGE FOR ZERO DYNAMIC RESIST.	AVE. INVERSE CURRENT AT -50 Volts 70°C. ma.	SHUNT CAP. mmf.	AMBIENT TEMP. RANGE °Cent.	TYPE
			Length	Diam.	Lead Length													
1N66	Gen. Purpose Diode	7CC	0.400	0.175	1	60	150	50	5.0		0.05	0.8		70	0.43	1.0	-50 to +100	1N66
1N67	50V DC Restorer	7CC	0.400	0.175	1	80	100	35	4.0	0.005		0.05		100	0.1	1.0	-50 to +100	1N67
1N68	100V DC Restorer	7CC	0.400	0.175	1	100	100	35	3.0					120	0.15	1.0	-50 to +100	1N68
CK705	Gen. Purpose Diode	7CC	0.400	0.175	1	60	150	50	5.0		0.05	0.8		70	0.43	1.0	-50 to +100	CK705
CK706	Video Detector	7CC	0.385	0.140	1	RF efficiency at 60 MC is approx. 50%					0.20			50			-50 to +100	CK706
CK707	50V DC Restorer	7CC	0.400	0.175	1	80	100	35	3.5	0.008		0.10		100	0.18	1.0	-50 to +100	CK707
CK708	100V DC Restorer	7CC	0.400	0.175	1	100	100	35	3.0				0.625	120	0.15	1.0	-50 to +100	CK708
CK709	4 Matched Diodes	8L	2½	1⅜	Octal Base	60	150	50		Matched within 2.5% at +1 Volt.							-50 to +100	CK709
CK710	UHF Converter	7CC	0.385	0.140	1	3	150	50	3.0at 0.5v	0.2at -0.6v						1.7	-50 to +100	CK710
CK711	4 Matched Diodes	8L	1.75	1⅜	Octal Base	80	100	35	Special matched sections. Refer to Data Sheet.							-50 to +100	CK711	
CK712	200 Volt Diode	7CC	0.400	0.175	1	200	70	22.5	1.0	Max. dissipation 80 mw at 25°C.			0.8 at -200v	225		1.0	-50 to +100	CK712
CK713	Computer Diode	7CC	0.400	0.175	1	75	150	50	21 at +2v			0.25 at -40v	(DC characteristics at 50°C.)			1.0	-50 to +100	CK713
CK715	Freq. Multiplier	7CC	0.385	0.140	1	40	125	35	10		0.20			50			-50 to +100	CK715

Note: DC characteristics change with temperature, unless otherwise noted all characteristics are at 25°C.

TRANSISTORS

TYPE	CONSTRUCTION	TYPICAL APPLICATION	BASING	MAX. DIMENSIONS Inches		COLLECTOR VOLTS	EMITTER VOLTS	COLLECTOR CURR. ma.	EMITTER CURR. ma.	CURRENT AMPLIFICATION minimum	FREQ. RESPONSE minimum	NOISE FIGURE at 1 KC maximum	TYPE
				Height	Diam.								
CK716	Point Contact	AF-RF Amplifier	9N	0.65	0.255	-15	0.5	2.5	1.0	1.2	100 kc	65 db.	CK716



RECTIFIER TUBES



TYPE	CONSTRUCTION	HEATER or FILAMENT			BASING	MAX. DIMENSIONS Inches		MAX. PEAK INVERSE VOLTAGE	MAX. PEAK PLATE CURRENT PER PLATE	MAX. DC OUTPUT CURRENT	AVERAGE TUBE DROP Volts	BASE	TYPE
		Volts	Amps.	Type		Height	Diam.						
BH	Full Wave—Gas			Cald	8EC	4 3/4	1 13/16	1,000	400 ma.	125 ma.	90	4-pin	BH
0Z4A/ CK1003	Full Wave—Gas			Cold	8XA	2 3/4	1 5/16	880	330 ma.	110 ma.	24	Octal	0Z4A/ CK1003
2X2A	Half Wave—High Vacuum	2.5	1.75	Htr	8ED	4 17/32	1 9/16	12,500	60 ma.	7.5 ma.		4-pin	2X2A
3B24W	Half Wave—High Vacuum	2.5 5.0	3.0 3.0	Htr Fil	8EA	4 13/16	1 1/2	20,000 20,000	150 ma. 300 ma.	30 ma. 60 ma.		4-pin	3B24W
3B26	Clipper Diode—High Vacuum	2.5	4.75	Htr	8X	4 3/4	1 5/16	15,000	8 amp.	20 ma.	130	Octal	3B26
3B29	Half Wave—High Vacuum	2.5	4.75	Htr	See Data	5 3/4	1 9/16	16,000	250 ma.	65 ma.	130	4-pin	3B29
4B31	Clipper Diode—High Vacuum	5.0	5.25	Htr	See Data	6 3/4	2 9/16	16,000	16 amp.	60 ma.	150	Jumbo 4-pin	4B31
5R4GY	Full Wave—High Vacuum	5.0	2.0	Fil.	8WB	5 3/16	2 1/16	2,800	650 ma.	175 ma.		Octal	5R4GY
5R4WGY	Full Wave—High Vacuum	5.0	2.0	Fil.	8WB	5 3/16	2 1/16	2,800	650 ma.	175 ma.		Octal	5R4WGY
6X4W	Full Wave—High Vacuum	6.3	0.6	Htr	9Q	2 3/4	0.75	1,250	210 ma.	70 ma.		Octal	6X4W
6X5WGT	Full Wave—High Vacuum	6.3	0.6	Htr	8XB	3 3/16	1 5/16	1,250	210 ma.	70 ma.	22	Octal	6X5WGT
RK72	Half Wave—High Vacuum	2.5	3.0	Fil.	8EB	4 13/16	1 1/2	20,000	150 ma.	30 ma.	200	4-pin	RK72
RK73	Half Wave—High Vacuum	2.5	4.25	Fil.	8AB	4 3/4	1 5/16	13,000	3 amp.	20 ma.	135	Octal	RK73
RX120	Half Wave—Mercury, Argon	2.5	30.0	Htr	See Data	8 15/16	3 13/16	150	120 amp.	20 amp.	5	Mogul	RX120
RX120A	Half Wave—Mercury	2.5	30.0	Htr	See Data	8 15/16	3 13/16	300 750	120 amp. 120 amp.	20 amp. 10 amp.	6 6	Mogul	RX120A
RX212	Half Wave—Mercury	2.5	30.0	Htr	See Data	12	3 3/4	1,000	120 amp.	20 amp.	10	Mogul	RX212
RX215	Full Wave—Mercury	2.5	30.0	Htr	See Data	8	3 3/4	500	90 amp.	15 amp.	15	S. Jumbo 4-pin	RX215
RK816	Half Wave—Mercury	2.5	2.0	Fil.	8EB	4 11/16	1 9/16	7,500	500 ma.	125 ma.		4-pin	RK816
RK866A	Half Wave—Mercury	2.5	5.0	Fil.	8EB	6 9/16	2 7/16	10,000	1 amp.	250 ma.	15	4-pin	RK866A
RK872A	Half Wave—Mercury	5.0	7.5	Fil.	See Data	8 1/2	2 3/16	10,000	5 omp.	1.25 omp.	10	Jumbo 4-pin	RK872A
CK1005	Full Wave—Gas	6.3	0.1	Note Below	8Y	2 3/4	1 5/16	450	210 ma.	70 ma.	20	Octal	CK1005
CK1006	Full Wave—Gas	1.75	2.0	Note Below	8EF	4 11/16	1 13/16	1,600	600 ma.	200 ma.	20	4-pin	CK1006
CK1007	Full Wave—Gas	1.0	1.2	Note Below	8WA	2 3/4	1 5/16	980	330 ma.	110 ma.	24	Octal	CK1007
CK1012	Full Wave—Gas	1.75	2.0	Note Below	8EF	4 11/16	1 13/16	1,200	900 ma.	300 ma.	25	4-pin Med.	CK1012
CK1024	Full Wave—Gas			Cold	8XA	2 3/4	1 5/16	1,000	480 ma.	175 ma.	24	Octal	CK1024
CK1028	Half Wave—Gas	6.3	0.55	Fil.	8VA	2 1/4	3/4	2,500	300 ma.	100 ma.	15	7-pin Min.	CK1028
CK1036	Half Wave—Gas			Cold	5P	1 13/16	0.400	1,500	10 ma.	100 ma.		Flex. Leads	CK1036
CK1042	Half Wave—Gas			Cold	5N	2 1/4	0.400	2,800	30 ma.	8 ma.	120	Flex. Leads	CK1042
1641/RK60	Full Wave—High Vacuum	5.0	3.0	Fil.	8E	5 3/4	2 1/16	4,500 2,500	150 ma. 330 ma.	50 ma. 250 ma.	60	4-pin	1641/RK60
CK5517	Half Wave—Gas			Cold	7CB	2 1/4	3/4	2,800	100 ma.	12 ma.	100	7-pin Min.	CK5517
CK5642	Half Wave—High Vacuum	1.25	0.14	Fil.	5DB	2	0.210	10,000	Television Pulse Rect.			Flex. Leads	CK5642
CK5785	Half Wave—High Vacuum	1.25	0.015	Fil.	8E	1 1/2	W = 0.4 Th = 0.3	3,500	450 ma.	100 ma.	17	Flex. Leads	CK5785
CK5995	Half Wave—Gas	6.3	0.3	Htr	7BA	1 3/4	0.400	850	275 ma.	45 ma.	25	Flex. Leads	CK5995
CK6110⁷	Full Wave—High Vacuum	6.3	0.15	Htr	8CH	1 3/4	0.400	460	26.5 ma.	8 ma.		Flex. Leads	CK6110⁷
CK6174	Half Wave—Gas			Cold	7CB	2 1/4	3/4	2,800	30 ma.	3 ma.	100	7-pin Min.	CK6174

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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Note: May be used as lanic heated cathode rectifier under same conditions.

VOLTAGE REGULATOR-VOLTAGE REFERENCE TUBES

TYPE	TYPICAL APPLICATION	BASING	MAX. DIMENSIONS Inches		MIN. STARTING VOLTAGE SUPPLY	OPERATING VOLTAGE Approx.	MIN. OPERATING CURRENT ma.	MAX. OPERATING CURRENT ma.	MAX. REGULATION Volts	TYPE
			Height	Diam.						
0A2	Voltage Regulator	7G	2½	¾	185	150	5	30	6	0A2
0A3/VR75	Voltage Regulator	9T	4½	1⅞	105	75	5	40	5	0A3/VR75
0B2	Voltage Regulator	7G	2½	¾	133	108	5	30	4	0B2
0B3/VR90	Voltage Regulator	9T	4½	1⅞	125	90	10	30	8	0B3/VR90
0C3/VR105	Voltage Regulator	9T	4½	1⅞	133	105	5	30	4	0C3/VR105
0D3/VR150	Voltage Regulator	9T	4½	1⅞	185	150	5	40	5.5	0D3/VR150
1B46	Voltage Regulator	9Z	1.66	0.63	250	82	1	2	3	1B46
1B47	Voltage Regulator	9Z	1.66	0.63	250	82	1	2	3	1B47
CK1017	Voltage Regulator	7H	2⅞	¾	800	700	0.005	0.055	20	CK1017
CK1022	Voltage Regulator	7H	2⅞	¾	1100	1000	0.005	0.055	20	CK1022
CK1037	Voltage Regulator	3A	1.75	0.400	730	160	0.005	0.100	15	CK1037
CK1038	Voltage Regulator	3A	1.75	0.400	930	900	0.005	0.055	15	CK1038
CK1039	Voltage Regulator	3A	1.75	0.400	1230	1200	0.005	0.100	25	CK1039
CK5651	Voltage Reference	7G	2½	¾	115	82-92	1.5	3.5	3	CK5651
CK5783	Voltage Reference	3A	1½	0.400	115	82-92	1.5	3.5	3	CK5783
CK5783WA	Voltage Reference	3A	1½	0.400	115	82-92	1.5	3.5	3	CK5783WA
CK5787	Voltage Regulator	3A	2⅞	0.400	115	100	5	30	4	CK5787
CK5787WA	Voltage Regulator	3A	2⅞	0.400	145	100	1	25	4	CK5787WA
CK5962	Voltage Regulator	8W	2⅞	¾	730	700	0.002	0.055	15	CK5962
CK6073	Voltage Regulator	7G	2½	¾	185	150	5	30	6	CK6073
CK6074	Voltage Regulator	7G	2½	¾	133	108	5	30	4	CK6074
CK6213	Voltage Reference	3A	1½	0.400	200	127-133	1	2.5	2	CK6213

THYRATRON TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BASING	MAX. DIMENSIONS		MAX. PEAK INVERSE ANODE VOLTS	PEAK STARTER-ANODE BREAKDOWN VOLTS	MAX. PEAK CATHODE CURRENT	MAX. AVERAGE CATHODE CURRENT	TYPE
			Volts	Amps	Type		Height	Diam.					
0A4G	Gas Triode	Relay Service			Cold	8CT	4½	1⅞	225	+75 to +90	100 ma.	25 ma.	0A4G
2C33/RX233A	Gas Triode	Trigger Service	2.5	2.5	Fil.	8A	4⅝	1⅞	1500		1.5 amp.	25 ma.	2C33/RX233A
4C35	Gas Triode	Pulsing or Switching Service	6.3	6.1	Fil.		7	2⅞	2500		90 amp.	100 ma.	4C35
RK61	Gas Triode	Model Aircraft Control	1.4	0.05	Fil.	4E	1⅞	0.55	Special Circuit—Write for Data				RK61
RX884	Gas Triode	Sweep Oscillator	6.3	0.6	Htr.	8H	4½	1⅞	350		300 ma.	75 ma.	RX884
RX885	Gas Triode	Sweep Oscillator	2.5	1.5	Htr.	8F	4⅝	1⅞	350		300 ma.	75 ma.	RX885
CK1089	Gas Tetrode	Relay or Indicator Service			Cold	8F	2	¾		75	20 ma.	15 ma.	CK1089
2050	Gas Tetrode	Relay Service	6.3	0.6	Htr.	8J	4½	1⅞	1300		1 amp.	100 ma.	2050
2051	Gas Tetrode	Relay Service	6.3	0.6	Htr.	8J	4½	1⅞	700		375 ma.	75 ma.	2051

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the Field, it is not intended to indicate type availability.



SPECIAL PURPOSE TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BAS- ING	MAX. DIMENSIONS Inches		PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	OUT- PUT watts	LOAD RESIST. ohms	TYPE
			Volts	Amps.	Type		Height	Diam.												
1AE4	Pentode	R-F Amplifier	1.25	0.1	Fil	8YA	2 1/8	3/4	90	0	90		3.5	1.2		0.5	1550			1AE4
2C50	Dble. Triode	Power Amplifier	12.6	0.3	Htr	8BD	3 3/16	1 5/16	300	-24			12.5		9.5		1750	(Each Unit)		2C50
2C52	Dble. Triode	Voltage Amp.	12.6	0.3	Htr	8BD	3 3/16	1 5/16	250	-2			1.3		90		1900	(Each Unit)		2C52
3A4	Pentode	RF-AF Pwr. Amp.	2.8 1.4	0.4 0.2	Fil	7BX	2 1/8	3/4	150	-8.4	90		13.3	2.2		0.1	1900	0.7	8000	3A4
3A5	Dble. Triode	AF-RF Amp. Osc.	2.8 1.4	0.11 0.22	Fil	7BW	2 1/8	3/4	90	-2.5			3.7		15		1800			3A5
3B4	Beam Pentode	RF Amp. Osc.	2.5	0.16	Fil	7BU	2 1/8	3/4	150	-38	135		25	6.2	(IC ₁ =55 ma)			1.25 (at 100 Mc)		3B4
6AJ5	Pentode	RF-AF Amplifier	6.3	0.175	Htr	7BD	1 3/4	3/4	28	Rk200	28		3	1.2		0.090	2750			6AJ5
6AR6	Pentode	RF-AF Pwr. Amp.	6.3	0.45	Htr	7BD	2 1/8	3/4	120	Rk120	120		35	12		0.0125	8000	1.3	2500	6AN5
6AR6	Pentode	Power Amp.	6.3	1.2	Htr	9Y	3 15/32	1 7/16	250	-22.5	250		75	5.0		0.021	5400			6AR6
6AS6	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	1 3/4	3/4	120	-2	120	0	5.2	3.5			3200			6AS6
6AS7G	Dble. Triode	DC Amplifier	6.3	2.5	Htr	8BD	5 5/16	2 1/16	135	Rk250			125		2.1		7500			6AS7G
6J4	Triode	UHF Amplifier	6.3	0.4	Htr	7BT	2 1/4	3/4	100	Rk100			10		55		11000			6J4
6N4	Triode	HF Oscillator	6.3	0.8	Htr	7CA	1 3/4	3/4	180	-3.5			12		32		6000			6N4
7AK7	Pentode	Mixer-Gated Amp.	6.3	0.8	Htr	8V	3 5/32	1 3/16	150	0	90	0	40	21		0.0115	6500			7AK7
CK108	Pentode	R-F Amplifier	6.3	0.3	Htr	8G	4 17/32	1 9/16	250	-3	100		2.3	0.5		1.5	1250			CK108
CK118	Thermal Relay	Overload Protect.				8S	2 1/8	1.275	Operating volt. = 6.9 ± 0.2v; Release volt = 2.0 to 3.5 volts. Write for data											CK118
310A	Pentode	RF-AF Amplifier	10.0	0.315	Htr	7K	4 9/32	1 9/16	135	-3	135		5.5			0.75	1800			310A
954	Pentode	UHF Amplifier	6.3	0.15	Htr	8B	1 3/4	1 5/32	250	-3	100		2	0.7		> 1	1400			954
955	Triode	UHF Oscillator	6.3	0.15	Htr	8D	1 3/4	1 5/32	250	-7			6.3		25		2200			955
956	Pentode	UHF Amplifier	6.3	0.15	Htr	8B	1 3/4	1 5/32	250	-3	100		6.7	2.7		0.7	1800			956
957	Triode	UHF Oscillator	1.25	0.05	Fil	8C	1 3/4	1 5/32	135	-5			2		13.5		650			957
CK1030	Spark Gap	Overvolt. Protect.				None	1 5/16	3/4	Breakdown Voltage = 1500 to 2000 volts; Min. External Imped. = 5000 ohms.											CK1030
CK1031	Spark Gap	Overvolt. Protect.				None	1 5/16	3/4	Breakdown Voltage = 3000 to 3500 volts; Min. External Imped. = 10,000 ohms.											CK1031
CK1033	Spark Gap	Overvolt. Protect.				None	1 5/16	3/4	Breakdown Voltage = 4200 to 4600 volts; Min. External Imped. = 10,000 ohms.											CK1033
CK5608	Dble. Triode	Control Equip.	2.5	2	Htr	7J	4 11/16	1 13/16	300	-6			6		32		2450			CK5608
CK5608A	Dble. Triode	Control Equip.	2.5	2	Htr	8EG	4 11/16	1 13/16	Same characteristics as CK5608. Heaters are connected in series internally											CK5608A
CK5656	Dble. Tetrode	R-F Power Amp.	6.3	0.4	Htr	9K	2 5/16	3/4	150	-2	120		15	2.7		0.06	5800	(Each Unit)		CK5656
CK5694	Dble. Triode	Power Amplifier	6.3	0.4	Htr	8CS	4 3/4	1 13/16	294	-6			7		35		3200	(Each Unit)		CK5694
CK5910	Pentode	Radiosonde	1.4	0.05	Fil	8YA	2 1/8	3/4	90	0	90		1.6	0.45		1.5	900			CK5910
9001	Pentode	UHF Amplifier	6.3	0.15	Htr	7BD	1 13/16	3/4	250	-3	100		2	0.7		> 1	1400			9001
9002	Triode	UHF Oscillator	6.3	0.15	Htr	7BS	1 13/16	3/4	250	-7			6.3		25		2200			9002
9003	Pentode	UHF Amplifier	6.3	0.15	Htr	7BD	1 13/16	3/4	250	-3	100		6.7	2.7		0.7	1800			9003
9005	Diode	Detector	3.6	0.165	Htr	8DA	1 3/4	3/4	Max. Plate Voltage (RMS) = 117v; Max. I _o = 1.0 ma.											9005
9006	Dble. Diode	Detector	6.3	0.15	Htr	7BV	1 13/16	3/4	Max. Peak Inverse = 750 v; Max. I _o = 5 ma.											9006



TRANSMITTING TUBES



TYPE	CONSTRUCTION	TYPICAL APPLICATION	FILAMENT			MAXIMUM VOLTAGES				MAX. CURRENT MA.			POWER—WATTS			CAPACITANCES			BASE	TYPE
			Volts	Amps	Type	Plate	Grid 1	Grid 2	Grid 3	Plate	Grid 1	Grid 2	Dissipation	Drive	Output	G-P	Input	Output		
2C34/ RK34	Dual Triode	H-F Oscillator-Amp.	6.3	0.8	Heater	300	—36			80*	20*		10*	1.8*	16*	2.4	3.4	0.5	7-Pin	2C34/ RK34
2E24	Beam Pentode	VHF Oscil.-Amp.	6.0	0.65	Oxide	600	—175	200		85	3.5	12.5	13.5	2.0	16.5	0.11	8.5	6.5	Octal	2E24
2E26	Beam Pentode	VHF Oscil.-Amp.	6.0	0.7	Cathode	600	—175	200		75	3.5	12.5	13.5	0.17	27	0.20	13	7	Octal	2E26
2E30	Beam Pentode	RF-AF Amplifier	6.0	0.65	Fil.	250	—150	250	0	60	3		10	0.2	7.5	0.18	9.6	14	7-Pin Min.	2E30
RK4D22	Beam Tetrode	R-F Oscillator-Amp.	25.2 12.6	0.8 1.6	Cathode	750	—200	350		300	15	35	50	1.5	135	0.27	28.0	13.0	Spec. 7-Pin	RK4D22
RK4D32	Beam Tetrode	R-F Oscillator-Amp.	6.3	3.75	Cathode	750	—200	350		300	15	35	50	1.5	135	0.27	28.0	13.0	Spec. 7-Pin	RK4D32
5D23/ RK65	R-F Tetrode	R-F Amplifier	5.0	14.0	Thoriated	3000	—250	500		250	40	80	215	15.0	565	0.42	10.0	5.0	Jmb. 4-Pin	5D23/ RK65
RK6D21	Tetrode	Pulse Amp.	8.2	20	Thoriated	40Kv		2500					400						Giant 5-Pin	RK6D21
RK6D22	Tetrode	R-F, A-F Amp.	5.0	28.5	Thoriated	3500	—250	500		500	100	165	450	22.0	1000	0.5	22.0	10.0	Jmb. 4-Pin	RK6D22
RK25	R-F Pentode	Suppressor Mod.	6.3	0.9	Heater	500	—90	200	+45	55	8	38	10	0.5	22	0.2	10.0	10.0	7-Pin	RK25
RK38	Triode	R-F, A-F Amp.	5.0	8.0	Thoriated	3000	—200			165	40		100	10.0	225	4.3	4.6	0.9	Med. 5-Pin	RK38
RK59	Dual Triode	Quick Heat'g	6.3	1.0	Oxide	500	—60			90*	14*		15*	1.3*	32*	9.0	5.0	1.0	4-Pin	RK59
RK75	Pentode	R-F Oscil.-Amp.	5.5	1.0	Oxide	500	—100	250		60	7	25	15		15	0.55	15	12	Med. 5-Pin	RK75
RK715C	Tetrode	Pulse Modulator	27.0	2.15	Cathode	18000	—1000	1350		15 amp.			60			1.1	38	7	Spec. 4-Pin	RK715C
RK807	Beam Tetrode	R-F Oscil.-Amp.	6.3	0.9	Heater	600	—200	300		100	5	12	30	0.2	40	0.2	11.0	7.0	Med. 5-Pin	RK807
RK811A	Triode	RF-AF Amplifier	6.3	4	Fil.	1500	—200			175	50		65	7.1	200	5.6	5.9	0.7	4-Pin	RK811A
RK812A	Triode	RF-AF Amplifier	6.3	4	Fil.	1500	—200			175	35		65	6.5	190	5.5	5.4	0.77	4-Pin	RK812A
RK813	Beam Tetrode	R-F Oscil.-Amp.	10.0	5	Thoriated	2250	—300	400		225	30	55	125	4.0	375	0.25	16.3	14	Giant 7-Pin	RK813
RK814	Beam Tetrode	R-F Oscil.-Amp.	10.0	3.25	Thoriated	1250	—300	300		150	15	34	15	1.5	130	0.12	13.0	10.0	Med. 5-Pin	RK814
RK829B	Dual Beam Tet.	R-F Oscil.-Amp.	12.6	1.125	Cathode	750	—175	225		240*	15*	30*	40*	0.8*	87*	0.12	14.5	7.0	Med. 7-Pin	RK829B
RK832A	Dual Beam Tet.	R-F Oscil.-Amp.	6.3	0.8	Cathode	750	—100	250		90	6	20	15	0.19	26	0.05	7.5	3.8	Spec. 7-Pin	RK832A
RK837	R-F Pentode	R-F Oscil.-Amp.	12.6	0.7	Heater	500	—200	200	+40	80	8	40	12	0.4	22	0.2	16.0	10.0	Med. 7-Pin	RK837
RK1625	Beam Tetrode	R-F Oscil.-Amp.	12.6	0.45	Cathode	600	—200	300		100	6	12	30	0.2	40	0.2	11	7	Med. 7-Pin	RK1625
CK5763	Beam Pentode	R-F Oscil.-Amp.	6.0	0.75	Heater	300	—125	250	0	50	5	15	12	0.35	8	0.3	9.5	4.5	9-Pin Min.	CK5763
RK6146	Beam Pentode	RF-AF Amp.	6.3	1.25	Heater	750	—150	250		150	4		25	0.3	69	0.22	13.5	9	Octal	RK6146

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the field, it is not intended to indicate type availability.
*Indicates value for both sections combined.



REFLEX KLYSTRONS



TYPE	MAXIMUM FREQUENCY RANGE MEGACYCLES	FREQUENCY MEGACYCLES	TYPE OF TUNING	TYPICAL OPERATION				FOCUS or CONTROL POTENTIAL D.C. Volts	ELECTRONIC TUNING E.REF. / P.O. 2 Megacycles	MAXIMUM THERMAL DRIFT Mc/c°	FILAMENT CURRENT AT 6.3 V. AMPERES	TYPE OF CAVITY	TYPE
				POWER OUTPUT MILLIWATTS		REFLECTOR POTENTIAL D.C. Volts	BEAM VOLT. D.C. Volts						
				Ave.	Min.								
2K22	4240-4910	4775	Mech.-Cap.	115	75	-120 to -180	300		30 min.	-0.1 to +0.5	0.440	Self Cont.	2K22
2K25	8500-9660	9370	Mech.-Cap.	32	20	-128 to -123	300		55 ave.	0 to -0.2	0.440	Self Cont.	2K25
2K26	6250-7060	6660	Mech.-Cap.	100	80	-70 to -115	300		32 min.	0 to -0.2	0.440	Self Cont.	2K26
2K28	1200-3750	3315-3680	Mech.-Ind.	100	85	-140 to -300	300	300	20 min.	±.15	0.650	External	2K28
2K29	3400-3960	3560	Mech.-Cap.	106	85	-75 to -180	300		28 min.	-0.1 to +.05	0.440	Self-Cont.	2K28
2K33	22,000-25,000	22,000-25,000	Mech.-Cap.	40	10	-80 to -220	1800	-20 to -100	40 ave.	0 to -1.0	0.650	Self. Cont.	2K48
2K45	8500-9660	9660	Therm.-Cap.	32	20	-95 to -145	300		70 ave.		0.762	Self Cont.	2K45
2K48	4000-11,000	6900-10,850	Mech.-Ind.		25	-175 to -300	1250				0.515	External	2K48
2K56	3840-4460	4150	Mech.-Cap.	100	85	-85 to -150	300		30 min.	-0.1 to +.05	0.440	Self Cont.	2K56
6BL6	1600-5500	2110-4355	Mech.-Ind.	50	85	-30 to -330	300	0			0.675	External	6BL6
QK140		29,700-33,520	Mech.-Cap.	20	10	-50 to -200	2250	-20 to -250	45 ave.		0.650	Self Cont.	QK140
QK226		37,100-42,600	Mech.-Cap.	5		-50 to -200	2500	-20 to -200			0.650	Self Cont.	QK226
QK227		41,700-50,000	Mech.-Cap.	5		-50 to -200	3000	-20 to -200			0.650	Self Cont.	QK227
QK289		27,270-30,000	Mech.-Cap.	20	10	-50 to -200	2250	-20 to -200	45 ave.		0.650	Self Cont.	QK289
QK290		29,700-33,520	Mech.-Cap.	20	10	-50 to -200	2250	-20 to -200	45 ave.		0.650	Self Cont.	QK290
QK291		33,520-36,250	Mech.-Cap.	18	5	-50 to -200	2250	-20 to -250	45 ave.		0.650	Self Cont.	QK291
QK291		35,100-39,700	Mech.-Cap.	10	5	-50 to -200	2500	-20 to -200	45 ave.		0.650	Self Cont.	QK292
QK293		37,100-42,600	Mech.-Cap.	5		-50 to -200	2500	-20 to -200			0.650	Self Cont.	QK293
QK294		41,700-50,000	Mech.-Cap.	5		-50 to -200	3000	-20 to -200			0.650	Self Cont.	QK294
QK295	Two tubes necessary to cover 50,000 to 60,000 Mc.		Mech. Cap.	To be specified		-50 to -200	3500	-20 to -200			0.650	Self Cont.	QK295
QK306	18,000-22,000	18,000-22,000	Mech.-Cap.	40	10	-80 to -220	1800	-20 to -100	40 ave.	0 to -1.0	0.650	Self Cont.	QK306
RK726C	2700-2960	2800	Mech.-Cap.	100	85	-75 to -180	300		28 min.	-0.1 to +.05	0.440	Self Cont.	RK726C
RK5721	3500-12,000	4290-8340	Mech.-Ind.	125	100	-60 to -625	1000	+4 to +18	12 min.	±.025	0.580	External	RK5721
RK5976	6250-7460	6750	Mech.-Cap.	110	85	-78 to -158	300		32 min.	0 to -0.2	0.440	Self Cont.	RK5976
RK5981	1245-1460	1245-1460	Mech.-Cap.	100	40	-30 to -330	225		2.5 min.	±0.05	0.455	Self Cont.	RK5981
RK6043	2950-3275	3200	Mech.-Ind.	175	150	-100 to -175	300	300	20	±0.15	0.650	Self Cont.	RK6043
RK6115	5100-5900	5500	Mech.-Cap.	100	70	-115 to -175	300		30 min.	-0.1 to +.05	0.440	Self Cont.	RK6115

TR TUBES

TYPE	DESCRIPTION	CAVITY	FREQUENCY RANGE Megacycles	IGNITOR CURRENT μadc	MAX. PEAK DISSIPATION Watts	MAX. AVE. DISSIPATION Watts	RECOVERY TIME	TYPE
721B	Tunable	External	2800-3330	60-110	100	1	7μ sec. max.	721B



CAVITY MAGNETRON TUBES



TYPE	HEATER		CLASS	BAND or RANGE Mc.	Anode Kv	MAXIMUM RATINGS		Input Watts	Anode Kv	Anode Amps	TYPICAL OPERATION		P.P.S.	Pk.P.O. Kw	TYPE
	Volts	Amps				Anode Amps	Duty Cycle				Field Gauss	Pulse μsec			
RK2J23	6.3	1.5	Fixed Frequency—Pulsed	3071—3100	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J23
RK2J24	6.3	1.5	Fixed Frequency—Pulsed	3047—3071	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J24
RK2J25	6.3	1.5	Fixed Frequency—Pulsed	3019—3047	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J25
RK2J26	6.3	1.5	Fixed Frequency—Pulsed	2992—3019	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J26
RK2J27	6.3	1.5	Fixed Frequency—Pulsed	2965—2992	22.0	30.0	.012	600	20.0	30.0	2400	1.0	1000	275	RK2J27
RK2J28	6.3	1.5	Fixed Frequency—Pulsed	2939—2965	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J28
RK2J29	6.3	1.5	Fixed Frequency—Pulsed	2914—2939	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	RK2J29
RK2J30	6.3	1.5	Fixed Frequency—Pulsed	2860—2900	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	RK2J29
RK2J31	6.3	1.5	Fixed Frequency—Pulsed	2820—2860	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	RK2J31
RK2J32	6.3	1.5	Fixed Frequency—Pulsed	2780—2820	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	RK2J32
RK2J33	6.3	1.5	Fixed Frequency—Pulsed	2740—2780	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	RK2J33
RK2J34	6.3	1.5	Fixed Frequency—Pulsed	2700—2740	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	RK2J34
RK2J42	6.3	0.48	Fixed Frequency—Pulsed	9345—9405	6	5.5	.0025	82.5	5.5	4.5	Pkg.	1	2000	7	RK2J42
RK2J51	6.3	1.1	Tunable—Pulsed	8500—9600	16	16	.0012	230	15	14	Pkg.	1	1000	45	RK2J51
RK2J55	6.3	1.0	Fixed Frequency—Pulsed	9345—9405	16.0	16.0	.001	180	12.8	12.0	Pkg.	1.0	1000	50.0	RK2J55
RK2J56	6.3	1.0	Fixed Frequency—Pulsed	9215—9275	16.0	16.0	.001	180	12.8	12.0	Pkg.	1.0	1000	50.0	RK2J56
RK2J61A	6.3	1.5	Tunable—Pulsed	3000—3100	15.0	15.0	.002	250	10.7	12.5	1300	1.0	2000	35.0	RK2J61A
RK2J62A	6.3	1.5	Tunable—Pulsed	2914—3010	15.0	15.0	.002	250	10.2	12.5	1300	1.0	2000	35.0	RK2J62A
RK2J66	6.3	1.5	Tunable—Pulsed	2845—2905	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	RK2J66
RK2J67	6.3	1.5	Tunable—Pulsed	2795—2855	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	RK2J67
RK2J68	6.3	1.5	Tunable—Pulsed	2745—2805	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	RK2J68
RK2J69	6.3	1.5	Tunable—Pulsed	2695—2755	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	RK2J69
RK2J70	6.3	1.25	Fixed Frequency—Pulsed	3030—3110	7.5	15.0	.002	200	7.0	8.0	Pkg.	0.5	1000	20	RK2J70
RK2J71	6.3	1.25	Fixed Frequency—Pulsed	3190—3201	5.5	8.0	.002	100	5.0	5.0	Pkg.	1.0	2000	6	RK2J71
RK4J31	16.0	3.1	Fixed Frequency—Pulsed	2860—2900	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J31
RK4J32	16.0	3.1	Fixed Frequency—Pulsed	2820—2860	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J32
RK4J3	16.0	3.1	Fixed Frequency—Pulsed	2780—2820	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J33
RK4J34	16.0	3.1	Fixed Frequency—Pulsed	2740—2780	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J34
RK4J35	16.0	3.1	Fixed Frequency—Pulsed	2700—2740	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J35
RK4J36	16.0	3.1	Fixed Frequency—Pulsed	3650—3700	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J36
RK4J37	16.0	3.1	Fixed Frequency—Pulsed	3600—3650	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J37
RK4J38	16.0	3.1	Fixed Frequency—Pulsed	3550—3600	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J38
RK4J39	16.0	3.1	Fixed Frequency—Pulsed	3500—3550	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J39
RK4J40	16.0	3.1	Fixed Frequency—Pulsed	3450—3500	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J40
RK4J41	16.0	3.1	Fixed Frequency—Pulsed	3400—3450	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	RK4J41
RK4J43	16.0	3.1	Fixed Frequency—Pulsed	2992—3019	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J43
RK4J44	16.0	3.1	Fixed Frequency—Pulsed	2965—2992	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	RK4J44
RK4J54	12.6	3.75	Fixed Frequency—Pulsed	6875—6775	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J54
RK4J55	12.6	3.75	Fixed Frequency—Pulsed	6775—6675	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J55
RK4J56	12.6	3.75	Fixed Frequency—Pulsed	6675—6575	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J56

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the Field, it is not intended to indicate type availability.

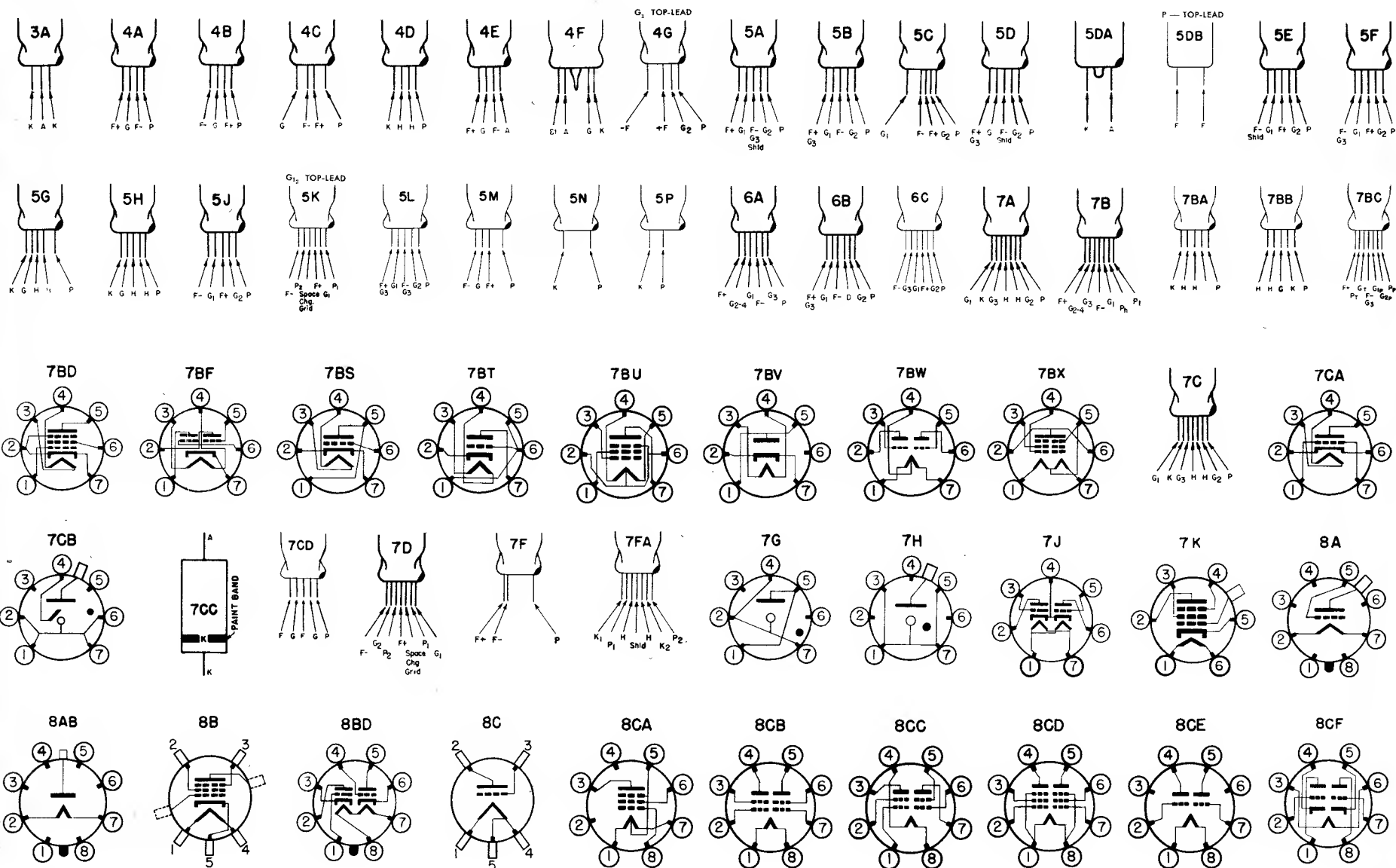


CAVITY MAGNETRON TUBES

TYPE	HEATER		CLASS	BAND or RANGE Mc.	Anode Kv	MAXIMUM RATINGS		Input Watts	Anode Kv	Anode Amps	TYPICAL OPERATION		P.P.S.	Pk.P.O. Kw	TYPE
	Volts	Amps				Anode Amps	Duty Cycle				Field Gauss	Pulse μsec			
RK4J57	12.6	3.75	Fixed Frequency—Pulsed	6575–6475	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J57
RK4J58	12.6	3.75	Fixed Frequency—Pulsed	6475–6375	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J58
RK4J59	12.6	3.75	Fixed Frequency—Pulsed	6375–6275	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	RK4J59
RK5J26	23.5	2.2	Tunable—Pulsed	1220–1350	31.0	60.0	.002	1800	27.5	46	1400	4	225	400	RK5J26
QK174C	4.0	3.1	Tunable—CW-FM	1990–2110	2.2	0.18	—	198	1.85	0.15	Pkg.	—	—	0.07	QK174C
QK312	8.5	32	Fixed Freq.—CW	2425–2475	7.0	2.5	CW	3600	5.1	0.58	Pkg.	CW	CW	1.5	QK312
RK730A	6.3	1.1	Fixed Frequency—Pulsed	9345–9405	16	16	.001	180	13	12	5400	1	1000	40	RK730A
RK5586	16.0	3.1	Tunable—Pulsed	2700–2900	30.0	70.0	.001	1200	28.0	70.0	2700	1	400	900	RK5586
RK5609	6.3	3.8	Fixed Freq.—CW	2425–2475	1.7	0.15	CW	200	1.5	0.125	Pkg.			0.125	RK5609
RK5657	16	3.4	Tunable—Pulsed	2900–3100	32.5	70	.001	1300	32.5	70	2700	1	500	800	RK5657
RK5982	6.3	3.2	Fixed Frequency—Pulsed	9335–9415	15.5	14.5	.001	225	15.5	13.4	Pkg.	4.5	200	75.5	RK5982

BASING DIAGRAMS

Subminiature types viewed with Red Dot on right hand side; other types viewed from bottom of base.



Subminiature types viewed with Red Dot on right hand side; other types viewed from bottom of base.

